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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GORMAN, DARREN W	
ART UNIT	**PAPER NUMBER**
3752	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/711,328	ARNOTT, BRIAN	
	Examiner	Art Unit	
	Darren W. Gorman	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) *18-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/08/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of invention Group I (claims 1-17) in the reply filed on August 15, 2005 is acknowledged.

2. Claims 18-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 15, 2005.

Information Disclosure Statement

3. The IDS filed on November 8, 2004 is hereby acknowledged and has been placed of record. Please find attached a signed and initialed copy of the PTO 1449.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims.

The present applicant does not include any drawings. Therefore, "every feature of the invention specified in the claims" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet,

even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 7-15 and 17-25 of copending Application No. 10/709,172 in view of Halter et al. USPN 5,061,382.

Claims 1-5, 7-15 and 17-25 of referenced copending Application No. 10/709,172 recite all of the claimed method steps recited in the present application claims 1-17, with the exception that claims 1-5, 7-15 and 17-25 of copending Application No. 10/709,172 recite the method steps as a method of removing oil from oil containing surfaces whereby the quantity of oil is reduced from the surface, rather than reciting the method as a method of extinguishing a fire from fire containing surfaces whereby intensity of fire is reduced from the surface.

Note: Many types of "oil" are known to readily burn (i.e. to be flammable), such as certain types of fuel oil.

Halter et al. teaches a method of extinguishing fire from a fire-containing surface by applying crushed glass to the burning surface. Halter et al. further details a demonstrated example wherein the burning surface included an ignited heavy fuel oil, whereby the fire was extinguished using powder comprising hydrophobic crushed glass particles (see column 11, lines 3-6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed method recited in claims 1-5, 7-15 and 17-25 of Application No. 10/709,172 for extinguishing an oil fire, as taught by Halter et al., since the application of crushed glass to burning oil would serve a dual purpose of reducing the quantity of oil from the surface, while reducing the intensity (i.e. extinguishing) of the fire from the surface.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 3-5, 7-11, 13 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 3-5, 7 and 9-12, it is unclear if these steps occur prior to or after application of the crushed glass to the surface. It is further unclear to the Examiner if these recitations are to be interpreted as method steps themselves.

Further regarding claim 5, the recitations "pre-crushed" and "pre-screened" are unclear, since neither a "crushing" step nor a "screening" step have been recited for providing a clear understanding for pre-crushing and pre-screening.

Further regarding claim 7, the recitation, "further crushed and screened" is unclear, since neither a "crushing" step nor a "screening" step have been recited for providing a clear understanding for further crushing and further screening. (Applicant's attention is also drawn to the misspelling of the word "wherein" on line 1 of claim 7)

Regarding claim 13, the recitation, "the oil adsorbed on the crushed glass" lacks clear antecedent basis.

Further regarding claim 13, the claim is indefinite for failure to further limit claim 1. Claim 1 is drawn to a method of extinguishing a fire. Recycling oil is unrelated to a method of fire extinguishing.

Regarding claim 15, is this recitation intended to further limit the "dried" recitation of claim 14?

Regarding claim 16, is this recitation intended to further limit the "pre-screened" or "screened" recitations of claim 14?

Regarding claim 17, "the oil adsorbed on the crushed glass" lacks clear antecedent basis.

Further regarding claim 17, the claim is indefinite for failure to further limit claim 14. Claim 14 is drawn to a method of extinguishing a fire. Recycling oil is unrelated to a method of fire extinguishing.

For purposes of examination, the claims will be examined as best understood by the Examiner.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Halter et al., USPN 5,061,382.

Halter et al. discloses a fire control and extinguishing composition comprising crushed glass particles and further teaches an example wherein the composition is used for extinguishing fire from an oil topped surface (see column 11, lines 3-6). Note: Each of the surfaces listed in the Markush-type format of claim 2 are merely a matter of intended use of the fire extinguishing method step recited in claim 1.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 3-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halter et al.

Halter et al. teaches the fire extinguishing method step of applying crushed glass to an oil fire containing surface (see again, column 11, lines 3-6), and further Halter et al. teaches the glass particles as having been prepared from glass cullet (see column 8, lines 34-35). Note: The definition given by Merriam-Webster's dictionary for "cullet" is "broken or refuse glass". However Halter et al. is silent as to many of the details of how the crushed glass is prepared prior to use in the expressed fire extinguishing method, including what type of device crushes the glass, how the crushed glass is screened, and how the crushed glass is dried. Further, Halter et al. is silent as to whether the crushed glass is colored or not, and Halter et al. is silent as to what happens to oil adsorbed on the crushed glass

Regarding the recitations of how the crushed glass is crushed, the Examiner takes Official Notice that it is old and well known to use any of several known crushing/milling devices for producing particulate glass, including using an impact crusher, a hammer mill, a cone crusher or a roller crusher. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use any one or combination of an impact crusher, a hammer mill, a cone crusher or a roller crusher, for producing the particulate glass of Halter et al., since

any of the above devices is well known in the art for producing crushed glass particles from glass cullet.

Regarding the recitation wherein the crushed glass is "colored glass", as noted above, Halter et al. expressly discloses that the glass used for the fire extinguishing composition is produced by crushing "glass cullet". Again, note above that cullet is essentially "broken or refuse glass". One having ordinary skill in the art would recognize that the definition of cullet would encompass both clear and colored glass. Further, Applicant's specification does not demonstrate a criticality of the glass being colored in as far as its usefulness as a fire extinguishing material. Therefore, although the disclosure of Halter et al. is silent as to using specifically "colored glass", it is the Examiner's position that it would be within the ordinary skill of one in the art to include colored glass with the glass cullet taught by Halter et al., since colored glass is common in collected glass refuse, and since one would reasonably expect crushed colored glass to exhibit fire extinguishing properties equivalent to crushed non-colored glass.

Regarding the recitations of how the crushed glass is screened, Halter et al. expressly discloses that the crushed glass particle sizes in the extinguished burning oil example set forth in column 11, lines 1-12, range from 6.5 to 81.6 micrometers. Such a particle size range is amply small enough to fall through the openings in the claimed screen sizes of one-inch mesh, 40 mesh, 30 mesh or 20 mesh. Further, the Examiner takes Official Notice that it is well known in the art of crushing and screening glass to screen the crushed glass multiple times from a larger mesh to a smaller mesh en route to obtaining a user-selected optimal particle size. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to

screen the crushed glass particles taught by Halter et al. through multiple screen sizes, including steps using any combination of one inch mesh, 40 mesh, 30 mesh, or 20 mesh, en route to obtaining a user-selected particle size for optimum fire extinguishing capabilities.

Regarding the recitations of how the crushed glass is dried, Halter et al. expressly discloses that the fire extinguishing composition including the crushed glass particles is "anhydrous" (see Abstract, lines 1-5). Therefore, it is inherent that in preparing the crushed glass particles for use in the fire extinguishing composition, that a drying procedure take place. However, Halter et al. is silent as to a specific temperature or temperature range for drying the glass particles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to dry the crushed glass particles of the fire extinguishing composition taught by Halter et al. to an optimal temperature, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 (CCPA 1955).

Further, the Examiner takes Official Notice that determining the optimal number of crushing, screening and drying steps, and determining the sequence of those steps in the preparation of the crushed glass for the fire extinguishing method taught by Halter et al. would be within the ordinary skill of one in the art.

Regarding the recitation wherein oil adsorbed on the crushed glass is further recycled into various petroleum-based products, the use of the fire extinguishing composition taught by Halter et al. in the exemplary method of extinguishing ignited fuel oil, as set forth in column 11, lines 3-6, would inherently result in the oil being adsorbed onto the glass particles, since it is well

known that glass exhibits oleophilic properties of greater or lesser degrees depending on the type of oil that the glass comes into contact with (see cited seminar publication by Jokuty et al.).

Since, after an oil fire is extinguished using the method taught by Halter et al., the used fire extinguishing material would inherently have an amount of oil adhering to the crushed glass particles, one having ordinary skill in the art would recognize the need to handle the oil properly such that health, safety and environmental concerns are met. The Examiner therefore takes Official Notice that it is well known in the art to recycle used oil and oil from spill cleanup procedures, whereby the oil is recovered and recycled into any of various useful petroleum based products, including but not limited to water repellant products, roof shingles, asphalt and fuel cake. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to recover the oil inherently adsorbed on the crushed glass particles from the fire extinguishing method taught by Halter et al., and to recycle the recovered oil into any one of several petroleum based products that are known to commonly include recovered oils.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents to Halter et al., Yamaguchi and Kaylor are cited as of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Darren W Gorman
Examiner
Art Unit 3752

DWG 8/25/05
DWG
August 25, 2005

David A. Scherbel
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